

## CLAIMS

1. An interferon-suppressing placental lactogen peptide (ISPLP) comprising a sequence of amino acids selected from the group consisting of:

- (a) the N-terminal 28 residues of hPL, VQTVPLSRLFDHAMLQAHRAHQLAIDTY (SEQ ID NO:4),
- (b) a 28 amino acid sequence with substantial identity to SEQ ID NO:4, containing one or more conservative amino acid substitutions,
- (c) a derivative of SEQ ID NO:4, comprising from 5 to 27 residues, and
- (d) a derivative of the 28 amino acid sequence with substantial identity to SEQ ID NO:4, comprising from 5 to 27 residues;

which peptide suppresses IFN-gamma-stimulated expression of MHC class II antigens, MHC class I antigens, and ICAM-1 antigen.

2. An interferon-suppressing placental lactogen peptide (ISPLP) comprising a sequence of amino acids selected from the group consisting of:

- (a) the N-terminal 28 residues of hPL-1, VQTVPLSRLFKEAMLQAHRAHQLAIDTY (SEQ ID NO:7),
- (b) a 28 amino acid sequence with substantial identity to SEQ ID NO:7, containing one or more conservative amino acid substitutions,
- (c) a derivative of SEQ ID NO:7, comprising from 5 to 27 residues, and
- (d) a derivative of the 28 amino acid sequence with substantial identity to SEQ ID NO:7, comprising from 5 to 27 residues;

which peptide suppresses IFN-gamma-stimulated expression of MHC class II antigens, MHC class I antigens, and ICAM-1 antigen.

3. A peptide according to claim 1, which suppresses IFN-gamma-stimulated expression of an MHC class II antigen.
4. A peptide according to claim 1, which suppresses IFN-gamma-stimulated expression of an MHC class I antigen.
5. A peptide according to claim 1, which suppresses IFN-gamma-stimulated expression of ICAM-1 antigen.
6. A peptide according to claim 2, which suppresses IFN-gamma-stimulated expression of an MHC class II antigen.
7. A peptide according to claim 2, which suppresses IFN-gamma-stimulated expression of an MHC class I antigen.
8. A peptide according to claim 2, which suppresses IFN-gamma-stimulated expression of ICAM-1 antigen.
9. An interferon-suppressing placental lactogen peptide (ISPLP), having the sequence VQTVPLSRLFDHAMLQAHRAHQLAIDTY (SEQ ID NO:4), which suppresses IFN-gamma-stimulated expression of an MHC class II antigen.
10. An interferon-suppressing placental lactogen peptide (ISPLP), having the sequence VQTVPLSRLFKEAMLQAHRAHQLAIDTY (SEQ ID NO:7), which suppresses IFN-gamma-stimulated expression of an MHC class II antigen.

11. A method for treating a human subject in need thereof, comprising administering to the subject an effective amount of a cell or tissue that has been treated ex vivo with a peptide according to claim 1.

12. A method for treating a human subject in need thereof, comprising administering to the subject an effective amount of a cell or tissue that has been treated ex vivo with a peptide according to claim 2.

13. A method for treating a human subject in need thereof, comprising administering to the subject an effective amount of a cell or tissue that has been treated ex vivo with a peptide according to claim 9.

14. A method for treating a human subject in need thereof, comprising administering to the subject an effective amount of a cell or tissue that has been treated ex vivo with a peptide according to claim 10.

15. A method of treating a human subject presenting with autoimmune disease, inflammatory disease, or organ transplant rejection comprising administering to the subject an effective amount of an ISPLP of claim 1.

16. A method of treating a human subject presenting with autoimmune disease, inflammatory disease, or organ transplant rejection comprising administering to the subject an effective amount of an ISPLP of claim 2.

17. A method of treating a human subject presenting with autoimmune disease, inflammatory disease, or organ transplant rejection comprising administering to the subject an effective amount of an ISPLP of claim 9.

18. A method of treating a human subject presenting with autoimmune disease, inflammatory disease, or organ transplant rejection comprising administering to the subject an effective amount of an ISPLP of claim 10.

19. A method of treating a human subject presenting with autoimmune disease, inflammatory disease, or organ transplant rejection comprising administering to the subject an effective amount of an ISPLP of claim 11.